CHAPTER - II
CHAPTER-II
GEOGRAPHY

2.0.0 INTRODUCTION :

In general, geography refers to physiography, geomorphology, weathering, drainage, water bodies, rainfall, temperature, human geography and communication. These are discussed in this chapter.

2.1.0 PHYSIOGRAPHY :

Salem district of Tamilnadu is engulfed by number of hills namely Shevaroy hill, Kolli hill, Chitteri Hill, Pachamalai Hill, Kalrayan hill, Kanjamalai hill etc., Of these, Kanjamalai hill is well known on account of iron ore deposits. It is situated about 8 kms west of Salem town and located at the centre of the study area (Fig1.1, Location map). The study area falls between the North Lat. 77° 59’- 78° 08’ and East Long 11° 34’-11° 40’ and form part of the Survey of India(1971) toposheets No. 58 I/2 and E/14. Kanjamalai is a hill with a height of 996 mts amidst the plain composed of gneisses. It is observed that the rolling plains of magnetite quartzite surrounding this hill are extending into the fluvial pediment under soil cover. Also, there are small hills which are the extensions of Shevaroy hill and the Eastern Ghats. The plain land has an altitude of 260-280 mts above mean sea level.

2.2.0 GEOMORPHOLOGY :

Kanjamalai is a residual hill where the harder rock masses have withstood weathering and erosion while the softer rocks had been eroded away. The geological structure had also molded the configuration of the land and produced the geomorphological feature namely synclinal hill, while the anticlinal structure in
the north and south had been eroded forming the low plains. The highly jointed and broken blocks of float ore have formed talus masses along the southern and eastern side of the hill. The soft rocks are more weathered and have been deeply cut to form steep valleys and gully sections. The important geomorphological features of the study area are 1. Fluvial Pediment, 2. Structural Pediment, 3. Rolling plains, 4. Structural Hill, 5. Soil cover, 6. Tank, 8. Upland, and 9. Lowland. These are all identified and interpreted with the help of aerial photos (Fig. 2.1).

2.3.0 WEATHERING:

In the Kanjamalai hill, iron ore deposits were subjected to intense weathering and this had resulted in thick piling of weathered products at foot hill areas. Effect of weathering was also observed in gneissic ground but it is not much. In general, weathering had produced reddish soils, loamy sand and sandy soils in the plain ground. Further, fractures in the form of joints are observed in the rocks and along these fractures, soil pediments and rolling balls (iron balls) are observed.

2.4.0 DRAINAGE AND WATER BODIES:

The study area has a number of odai* and nallas* east of Kanjamalai hill is drained by the river Tirumanimuttar which runs in N-S direction. This had originated from the surrounding hills of Shevaroys and spread into the plain land in north and finally join the river Cauvery in south. It is a non-perennial river.

*Local names for very small streams.
formed and flow downwards through cracks and joints of different rock types in different directions. Some of the streams have originated from the upland portion and join the small tanks in the plains. Water bodies such as lakes, tanks, are numerous and are found throughout the study area. Most of the tanks are dry and have water only during winter rainy season.

2.5.0 CLIMATE:

In general the climate of this district is marked by dry atmosphere with cool nights. Four main seasons are recognized in a year. 1. dry season from January to March, 2. hot season during April and May, 3. South west monsoon season from June to September and 4. the north east monsoon season from October to December.

2.6.0 RAINFALL:

Twenty rain fall recording stations are located in the district. The recorded rainfall per annum at Yercaud hill station in the Shevaroy hills is 1,636 mm. The hilly terrain is responsible for the variation of rain fall over the district and it is varying from 680 to 980 mm. The average annual rainfall over the plains is 849 mm. It reaches maximum in October and minimum in July, while in December it is dry.

2.7.0 TEMPERATURE:

From the meteorological observatory of Salem district, it is noted that the hot weather begins from March. The maximum and minimum temperatures during April and May being 37°C and 18°C. In December the maximum temperature is 32°C. Being an interior district the diurnal range of temperature is large particularly in the dry and hot seasons. The humidity of this district is not
showing much variation. However it is less than 40 percent.

2.8.0 HUMAN GEOGRAPHY:

People of this district are mainly agriculturalist. In addition, engineering, cotton, sago and steel plant industries are also observed. In general, the population density is high and the entire district has been equally spread among villages and towns. Salem district has 12 taluks namely Hosur, Krishnagiri, Dharmapuri, Harur, Omalur, Salem, Yercaud, Tiruchengode, Rasipuram, Namakkal, Attur and Sankari. The study area belongs to the Salem taluk, which is having the district headquarters at Salem town. The study area is connected by the following important villages.

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Name of the village</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Uttamacholapuram</td>
</tr>
<tr>
<td>2.</td>
<td>Elampillai</td>
</tr>
<tr>
<td>3.</td>
<td>Salem Steel Plant</td>
</tr>
<tr>
<td>4.</td>
<td>Ariyanur</td>
</tr>
<tr>
<td>5.</td>
<td>Sengodapalayam</td>
</tr>
<tr>
<td>6.</td>
<td>Virapandi</td>
</tr>
<tr>
<td>7.</td>
<td>Pulaveri</td>
</tr>
<tr>
<td>8.</td>
<td>Kolingipatti</td>
</tr>
<tr>
<td>9.</td>
<td>Kondalampatti</td>
</tr>
</tbody>
</table>

2.9.0 COMMUNICATION:

The study area is adjacent to Salem town and has good network of communication such as, railway lines, bus routes and highways. It is well connected with adjacent districts and state. The Madras-Coimbatore (via Salem) Southern broad gauge
lines cross the study area through Virapandi road railway station. The railway line runs in a EW direction and also parallel to Kanjamalai hill. About seven kilometers from the eastern end of Kanjamalai, Salem railway junction is situated. It is also connected by a metre gauge line passing through Neyveli and Virudhachalam to Cuddalore port on the Bay of Bengal. The Madras-Calicut (via Salem) National Highway-47 passes through Ariyanur village which is about 3 kms south of Kanjamalai. There are metalled road linking with important villages of the study area such as Virapandi, Ariyanur, Elampillai and Kondalampatti. Villages of the study area are well connected by metalled and unmettalled roads.